

SDR 134/2013

21 August 2013

National Reading and Numeracy Test Results, 2013 (Experimental Statistics)

This Statistical First Release provides information for Wales on the standardised scores achieved in the English and Welsh versions of the National Reading Tests and the procedural element of the National Numeracy Tests. The data is presented at Wales and local authority (LA) level. The National Tests were first introduced in schools in May 2013 for all pupils in Years 2 to 9.

This is the first year in which data on National Tests has been collected. In addition, results for the National Reading Tests and National Numeracy Tests were obtained through separate data collections. For these reasons, this statistical release is being classed as “experimental statistics”. Further information can be found in the Notes section on page 9 of this release.

Pupils' raw scores obtained from the test papers were converted into standardised scores, which are presented in this release. Standardised scores take into account the pupil's age at the time of testing and place all pupils on the same scale, meaning comparisons can be made between pupils regardless of age, year group or the particular test paper sat. **The standardised results provide a measure of relative performance only. Therefore the data in this release should be used to compare the relative performance of different cohorts rather than to assess overall performance against a particular indicator. It should also be noted that the percentage of pupils achieving a standardised score of greater than 85 should not be used as an indicator of acceptable performance.**

Results are presented in this release in three bands of standardised scores. “Less than 85” represents pupils with standardised scores more than one standard deviation less than the mean. “Between 85 and 115” represents pupils with standardised scores within one standard deviation either side of the mean. “More than 115” represents pupils with standardised scores more than one standard deviation above the mean.

Comparisons between the reading and numeracy tests are not recommended due to differences in the standardisation procedures. The mean of the standardised scores for the National Reading Test is higher than both the reading test sample distribution and the distribution of standardised scores for the National Numeracy Test. Further information on the standardisation process can be found in the Notes section.

Key Points for 2013:

- Higher standardised scores were generally seen in primary school year groups than in secondary school year groups in both the English and Welsh versions of the National Reading Test.
- More girls than boys achieved a standardised score greater than 115 whilst more boys than girls achieved a standardised score less than 85 in both the English and Welsh versions of the National Reading Test.
- More boys than girls achieved both a standardised score greater than 115 and a standardised score less than 85 in both the National Numeracy Test.

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National Reading Tests

Table 1: National Reading Test results for all pupils, by gender, National Curriculum Year Group and result, 2013 (a)

Year Group	Gender	National Reading Test - English						National Reading Test - Welsh					
		Disapplied %	Absent during test window %	Less than 85 %	Betw een 85 and 115 %	Greater than 115 %	Cohort	Disapplied %	Absent during test window %	Less than 85 %	Betw een 85 and 115 %	Greater than 115 %	Cohort
Year 2	Boys	3.3	1.0	10.1	53.1	32.5	13,373	1.2	0.7	1.0	50.7	46.3	3,696
	Girls	1.6	0.8	6.8	49.9	40.8	12,523	0.7	0.7	0.5	39.5	58.6	3,751
	All pupils	2.5	0.9	8.5	51.6	36.5	25,896	1.0	0.7	0.8	45.1	52.5	7,447
Year 3 (b)	Boys	3.1	1.1	14.6	58.3	22.8	13,369	1.9	0.9	3.6	71.1	22.6	3,569
	Girls	1.7	1.0	9.3	59.1	28.8	12,579	0.7	1.2	1.8	62.9	33.4	3,504
	All pupils	2.4	1.1	12.1	58.7	25.7	25,948	1.3	1.0	2.7	67.0	28.0	7,073
Year 4	Boys	2.8	1.1	12.8	59.9	23.4	16,602	1.9	0.8	7.6	60.1	29.5	3,385
	Girls	1.4	1.0	8.6	59.1	29.8	15,622	1.2	1.0	4.4	53.2	40.3	3,345
	All pupils	2.1	1.0	10.8	59.5	26.5	32,224	1.6	0.9	6.0	56.7	34.9	6,730
Year 5	Boys	2.8	1.0	10.0	60.7	25.5	16,220	2.0	0.9	7.3	61.4	28.5	3,197
	Girls	1.4	0.9	6.6	58.4	32.8	15,464	0.9	0.8	3.2	52.6	42.4	3,268
	All pupils	2.1	0.9	8.3	59.5	29.1	31,684	1.5	0.9	5.2	57.0	35.5	6,465
Year 6	Boys	2.6	1.1	10.8	57.2	28.3	15,988	1.3	0.8	11.0	56.9	30.0	3,118
	Girls	1.3	0.8	6.7	53.6	37.5	15,021	0.7	0.8	6.5	51.7	40.3	3,030
	All pupils	2.0	0.9	8.8	55.5	32.8	31,009	1.0	0.8	8.8	54.3	35.1	6,148
Year 7	Boys	1.7	1.9	19.2	62.5	14.7	16,346	0.4	1.6	15.3	65.4	17.3	2,786
	Girls	0.8	1.4	12.4	65.0	20.4	15,397	*	*	10.0	62.2	26.8	2,945
	All pupils	1.2	1.7	15.9	63.7	17.4	31,743	0.2	1.3	12.6	63.8	22.2	5,731
Year 8	Boys	1.8	2.5	12.5	65.2	18.1	16,595	0.4	1.8	14.9	59.8	23.2	2,781
	Girls	0.9	2.0	8.5	63.1	25.4	15,732	*	*	8.4	57.3	31.9	2,805
	All pupils	1.3	2.2	10.6	64.2	21.7	32,327	0.2	2.1	11.6	58.5	27.6	5,586
Year 9	Boys	1.8	2.9	17.0	60.4	18.0	17,038	0.2	2.2	16.7	57.9	23.0	2,783
	Girls	1.0	2.6	11.3	61.1	24.1	16,202	*	*	10.7	56.3	30.5	2,852
	All pupils	1.4	2.7	14.2	60.7	20.9	33,240	0.2	2.2	13.7	57.1	26.8	5,635
All years	Boys	2.4	1.6	13.5	59.9	22.6	125,531	1.2	1.2	9.1	60.4	28.2	25,315
	Girls	1.2	1.4	8.8	58.9	29.7	118,540	0.6	1.2	5.4	54.1	38.7	25,500
	All pupils	1.9	1.5	11.2	59.4	26.0	244,071	0.9	1.2	7.2	57.2	33.5	50,815

(a) One school failed to provide reading test results.

(b) Does not include optional English reading test results for pupils in year 3 studying Welsh first language.

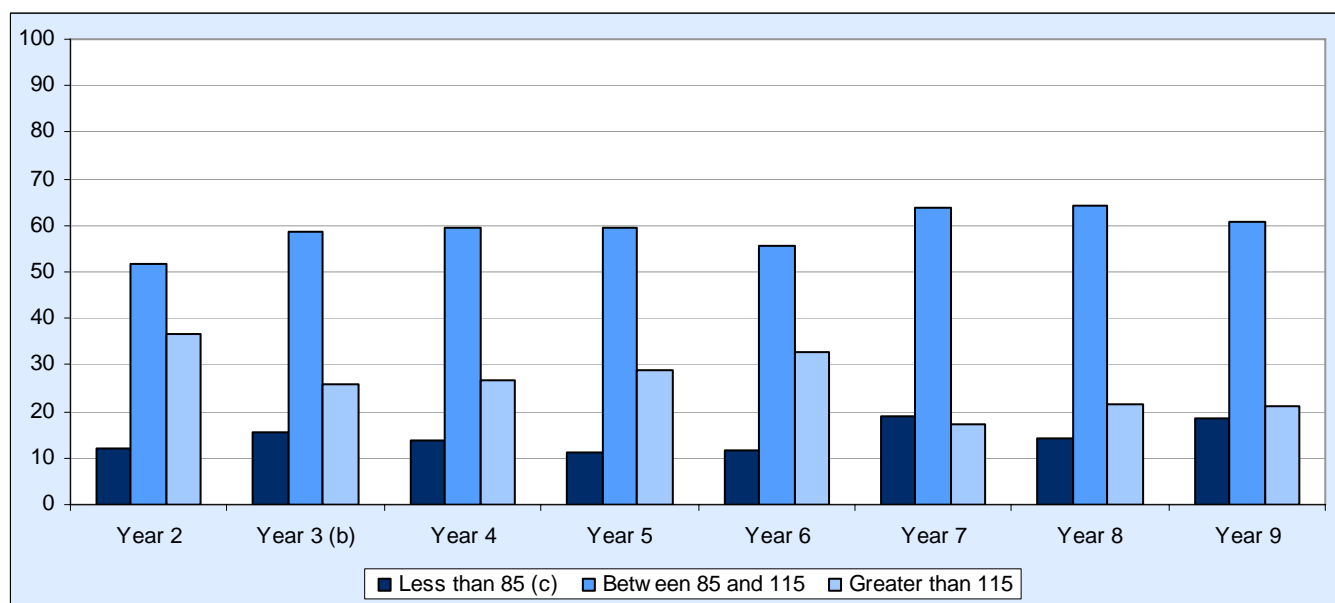
Table 2: National Reading Test results, by LA and result, 2013 (a)

Local Authority	National Reading Test - English						National Reading Test - Welsh					
	Disapplied	Absent during test window	Less than 85	Between 85 and 115	Greater than 115	Cohort	Disapplied	Absent during test window	Less than 85	Between 85 and 115	Greater than 115	Cohort
	%	%	%	%	%		%	%	%	%	%	
Isle of Anglesey	1.6	1.4	8.6	58.6	29.8	4,422	1.7	1.0	8.3	54.1	35.0	3,718
Gwynedd	1.4	1.1	11.5	62.0	23.9	7,480	1.5	1.6	6.4	54.3	36.2	9,136
Conwy	1.2	1.2	12.2	60.5	24.9	8,340	0.3	1.3	7.3	59.6	31.5	1,824
Denbighshire	2.8	0.9	10.4	61.0	24.9	8,150	1.0	0.4	5.3	55.3	38.1	1,942
Flintshire	1.2	1.7	10.8	59.7	26.6	12,938	*	*	8.3	54.9	35.5	760
Wrexham	2.9	2.4	10.5	58.7	25.5	10,798	1.3	1.5	7.3	65.1	24.8	1,148
Powys	1.4	0.9	9.1	58.3	30.4	10,105	0.4	0.8	5.2	55.2	38.4	1,595
Ceredigion	1.4	0.8	9.0	58.4	30.4	4,384	1.0	0.5	8.1	56.3	34.0	3,737
Pembrokeshire	1.5	1.3	10.2	58.0	29.1	9,459	0.7	0.3	7.3	57.3	34.3	1,779
Carmarthenshire (b)	1.5	1.6	10.9	60.7	25.3	13,103	1.2	1.6	8.1	56.3	32.8	7,219
Swansea	2.6	1.4	10.0	59.7	26.4	18,934	0.0	1.9	7.2	63.8	27.0	2,253
Neath Port Talbot	2.1	1.3	11.9	62.0	22.7	11,193	0.4	1.6	7.2	64.9	25.9	1,674
Bridgend	2.3	1.8	10.2	59.7	26.0	11,998	*	*	8.8	63.3	26.5	929
The Vale of Glamorgan	1.3	1.4	8.6	55.3	33.4	11,406	0.0	1.3	3.5	52.2	43.0	1,242
Rhondda Cynon Taf	2.0	1.5	12.8	60.4	23.3	19,922	0.4	1.4	9.4	63.4	25.3	4,041
Merthyr Tydfil	2.0	0.8	14.2	62.5	20.5	4,893	0.0	*	*	58.5	39.7	330
Caerphilly	0.8	1.6	14.1	61.2	22.3	15,453	1.0	1.0	8.9	60.8	28.2	2,201
Blaenau Gwent	1.7	2.2	14.6	63.9	17.6	5,520	*	*	11.1	68.0	20.3	153
Torfaen	1.0	2.0	12.9	61.1	23.0	8,277	*	*	9.9	63.1	26.3	889
Monmouthshire	1.1	1.0	7.2	54.8	36.0	6,641	*	*	4.3	44.6	49.5	184
Newport	2.5	1.7	11.2	57.9	26.7	13,028	*	*	6.9	67.0	25.8	333
Cardiff	1.5	1.5	11.7	57.9	27.5	26,720	0.4	1.0	4.5	50.4	43.7	3,718
Wales (b)	1.9	1.5	11.2	59.4	26.0	244,071	0.9	1.2	7.2	57.2	33.5	50,815

(a) Does not include optional English reading test results for pupils in year 3 studying Welsh first language

(b) One school in Carmarthenshire failed to provide reading test results.

Chart 1: Percentage of pupils in each year group achieving standardised scores within the bands shown in the National Reading Test (English), 2013 (a)



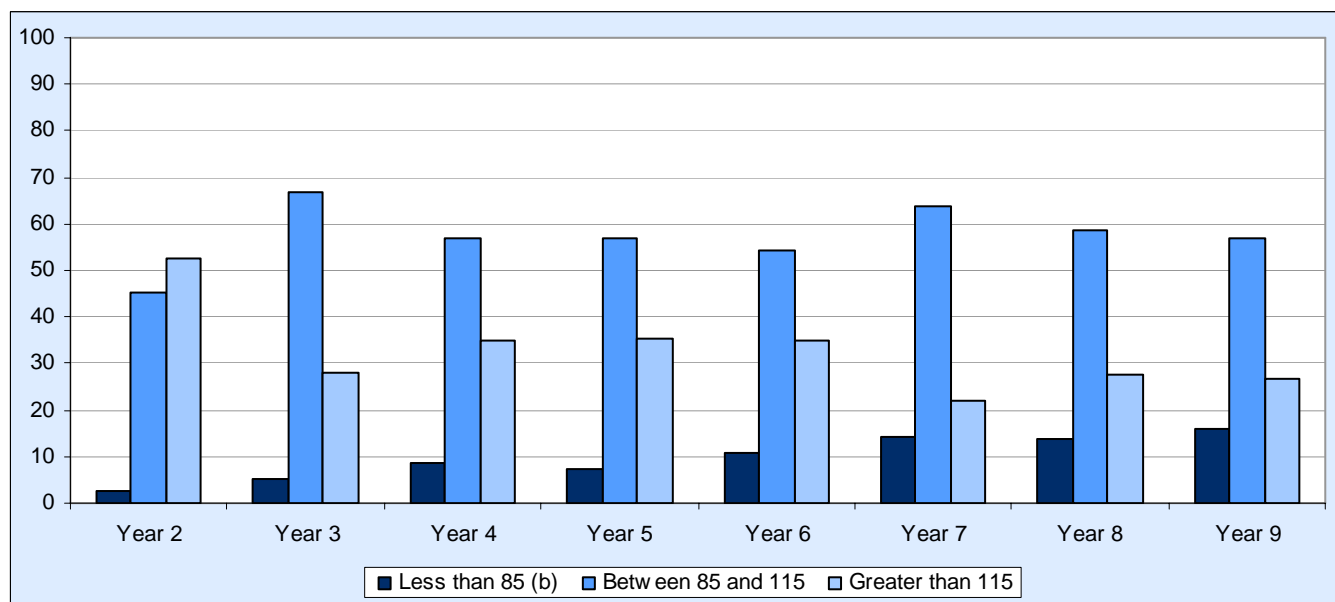
(a) One school failed to provide reading test results.

(b) Does not include optional English reading test results for pupils in year 3 studying Welsh first language.

(c) Includes pupils who were disapplied or absent during the test window.

- The percentage of pupils achieving a standardised score greater than 115 was higher across all primary school years than secondary school years. The highest percentage was seen in Year 2 (36.5 per cent).
- The percentage of pupils achieving a standardised score less than 85 was generally lower in primary school years, though the figure for Year 3 (15.6 per cent) was higher than the figure for Year 8 (14.2 per cent). The lowest percentage was seen in Year 5 (11.4 per cent).

Chart 2: Percentage of pupils in each year group achieving standardised scores within the bands shown in the National Reading Test (Welsh), 2013 (a)

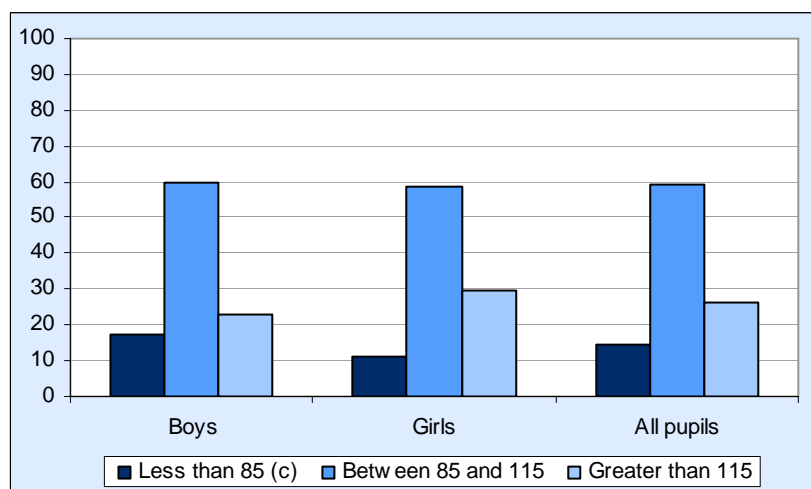


(a) One school failed to provide reading test results.

(b) Includes pupils who were disapplied or absent during the test window.

- The percentage of pupils achieving a standardised score greater than 115 was higher across all primary school years than secondary school years. The highest percentage was seen in Year 2 (52.5 per cent).
- The percentage of pupils achieving a standardised score less than 85 was lower across all primary school years than secondary school years. The lowest percentage was seen in Year 2 (2.4 per cent).

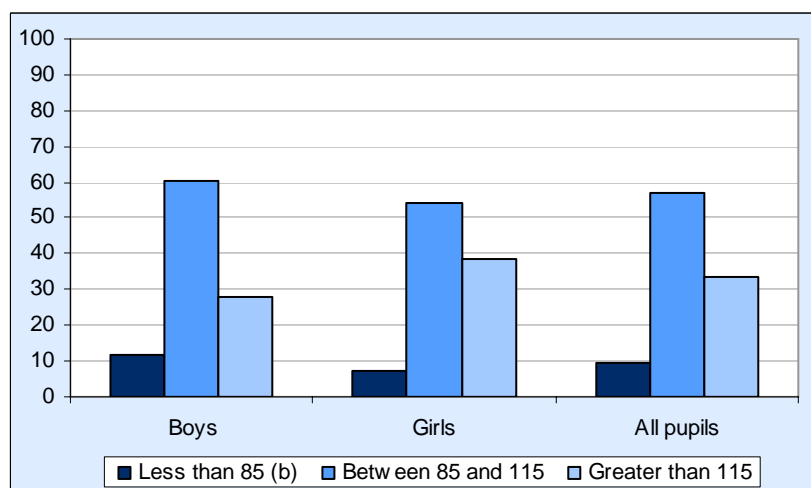
Chart 3: Percentage of pupils in all year groups achieving standardised scores within the bands shown in the National Reading Test (English), by gender, 2013 (a) (b)



- More girls than boys achieved a standardised score greater than 115 across all year groups in the English version of the National Reading Test. The gap between girls and boys stood at 7.0 percentage points.
- More boys than girls achieved standardised score less than 85 across all year groups in the English version of the National Reading Test. The gap between boys and girls stood at 6.1 percentage points.

(a) One school failed to provide reading test results.
 (b) Does not include optional English reading test results for pupils in year 3 studying Welsh first language.
 (c) Includes pupils who were disapplied or absent during the test window.

Chart 4: Percentage of pupils in all year groups achieving standardised scores within the bands shown in the National Reading Test (Welsh), by gender, 2013 (a)



- More girls than boys achieved a standardised score greater than 115 across all year groups in the Welsh version of the National Reading Test. The gap between girls and boys stood at 10.6 percentage points.
- More boys than girls achieved standardised score less than 85 across all year groups in the Welsh version of the National Reading Test. The gap between boys and girls stood at 4.3 percentage points.

(a) One school failed to provide reading test results.
 (b) Includes pupils who were disapplied or absent during the test window.

National Numeracy Tests

Table 3: National Numeracy Test results for all pupils, by gender, National Curriculum Year Group and result, 2013 (a) (b)

		National Numeracy Test - Procedural Component					
		Absent					
		during test	Less than	Between	Greater		
		Disapplied	w indow	85	85 and 115	than 115	
Year Group	Gender	%	%	%	%	%	Cohort
Year 2	Boys	2.3	1.0	13.6	64.7	18.5	17,057
	Girls	1.1	0.9	13.1	69.4	15.5	16,269
	All pupils	1.7	0.9	13.3	67.0	17.0	33,326
Year 3	Boys	2.3	1.2	13.4	64.3	18.8	16,884
	Girls	1.3	1.0	13.1	70.1	14.5	16,107
	All pupils	1.8	1.1	13.3	67.1	16.7	32,991
Year 4	Boys	2.2	1.1	13.7	64.8	18.2	16,563
	Girls	1.1	1.1	12.8	71.2	13.9	15,611
	All pupils	1.7	1.1	13.3	67.9	16.1	32,174
Year 5	Boys	2.4	1.2	13.0	66.0	17.3	16,191
	Girls	1.2	1.0	13.8	69.1	14.9	15,454
	All pupils	1.8	1.1	13.4	67.5	16.2	31,645
Year 6	Boys	2.3	1.1	12.9	65.6	18.1	15,979
	Girls	1.2	0.9	13.8	70.0	14.1	15,018
	All pupils	1.8	1.0	13.3	67.8	16.2	30,997
Year 7	Boys	1.5	2.0	12.4	66.1	17.9	16,317
	Girls	0.7	1.5	13.3	71.1	13.4	15,442
	All pupils	1.1	1.8	12.8	68.5	15.7	31,759
Year 8	Boys	1.6	2.2	12.8	67.5	16.0	16,576
	Girls	0.8	2.1	11.8	70.3	15.0	15,774
	All pupils	1.2	2.1	12.3	68.8	15.5	32,350
Year 9	Boys	1.7	3.1	12.1	66.0	17.2	17,084
	Girls	0.8	2.8	12.2	70.5	13.8	16,297
	All pupils	1.2	2.9	12.1	68.2	15.5	33,381
All years	Boys	2.0	1.6	13.0	65.6	17.7	132,651
	Girls	1.0	1.4	13.0	70.2	14.4	125,972
	All pupils	1.5	1.5	13.0	67.8	16.1	258,623

(a) Seven schools failed to provide numeracy test data.

(b) Includes Independent schools that provided their results.

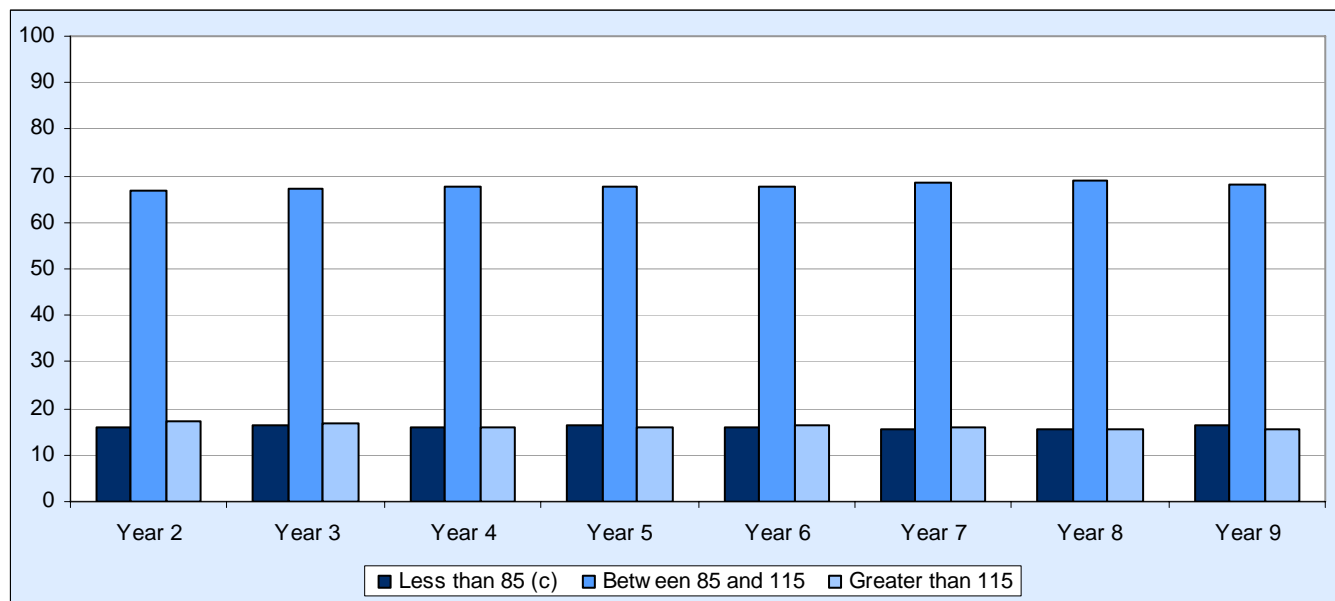
Table 4: National Numeracy Test results, by LA and result, 2013

Local Authority	National Numeracy Test - Procedural Component					Cohort
	Absent					
	Disapplied	during test w indow	Less than 85	Betw een 85 and 115	Greater than 115	
	%	%	%	%	%	
Isle of Anglesey	1.6	1.2	7.5	65.6	24.1	5,373
Gw ynedd	1.2	1.2	9.4	68.2	19.9	9,943
Conw y	1.2	1.4	14.7	69.1	13.6	8,830
Denbighshire	2.6	1.0	11.1	71.1	14.3	8,679
Flintshire	1.0	1.9	13.0	69.1	15.0	13,214
Wrexham	2.6	2.3	13.2	66.8	15.1	11,182
Pow ys	1.3	1.0	10.5	70.4	16.7	10,701
Ceredigion	1.2	0.7	11.2	69.1	17.9	5,328
Pembrokeshire	1.6	1.1	12.5	69.1	15.7	10,005
Cardiganshire	1.6	1.5	11.3	68.2	17.5	15,282
Sw ansea (a)	1.9	1.5	12.6	66.6	17.4	19,643
Neath Port Talbot (a)	1.6	1.5	14.1	68.4	14.4	11,687
Bridgend	2.1	1.6	12.7	68.9	14.7	12,284
The Vale of Glamorgan	1.1	1.2	8.2	67.1	22.3	11,784
Rhondda Cynon Taf	1.8	1.7	14.3	68.8	13.4	21,010
Merthyr Tydfil	1.9	1.1	17.8	67.8	11.4	5,052
Caerphilly	0.8	1.9	15.4	67.7	14.2	16,131
Blaenau Gw ent (a)	0.9	2.1	19.3	68.0	9.7	5,537
Torfaen	0.8	2.0	15.9	68.6	12.7	8,470
Monmouthshire	1.0	1.0	10.3	67.7	19.9	6,722
New port (a)	1.6	1.7	13.6	66.0	17.1	13,143
Cardiff (a)	0.9	1.5	14.2	65.9	17.5	27,703
Wales (a) (b)	1.5	1.5	13.0	67.8	16.1	258,623

(a) One school in each of Swansea, Neath Port Talbot, Blaenau Gwent and Newport failed to provide numeracy test data. Three schools in Cardiff failed to provide numeracy test data.

(b) Includes Independent schools that provided their results.

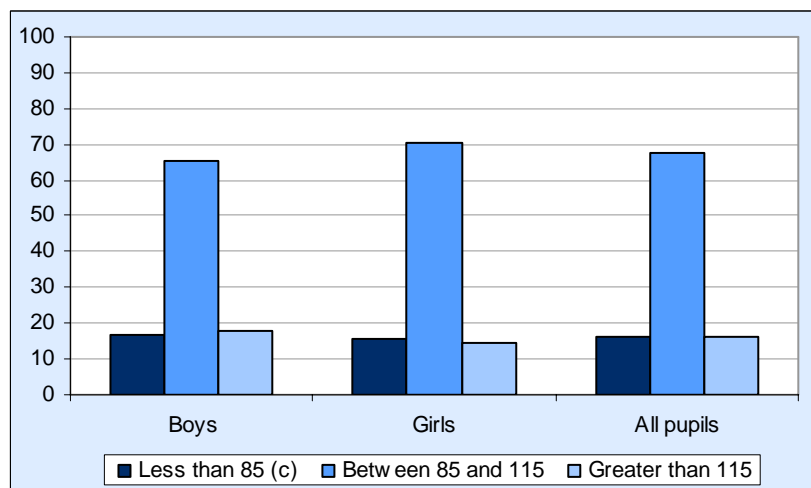
Chart 5: Percentage of pupils in each year group achieving standardised scores within the bands shown in the National Numeracy Test, 2013 (a) (b)



- (a) Seven schools failed to provide numeracy test results.
 (b) Includes Independent schools that provided their results.
 (c) Includes pupils who were disapplied or absent during the test window.

- A within-year group standardisation was performed on the National Numeracy Test results. Therefore, the pattern of results across the three standardised score bands within each year group broadly follows the expected distribution of 16 per cent less than 85, 68 per cent between 85 and 115 and 16 per cent greater than 115.

Chart 6: Percentage of pupils in all year groups achieving standardised scores within the bands shown in the National Numeracy Test by gender, 2013 (a) (b)



- (a) Seven schools failed to provide numeracy test results.
 (b) Includes Independent schools that provided their results.
 (c) Includes pupils who were disapplied or absent during the test window.

- More boys than girls achieved a standardised score greater than 115 across all year groups in the National Numeracy Test. The gap between boys and girls stood at 3.4 percentage points.
- More boys than girls achieved standardised score less than 85 across all year groups in the National Numeracy Test. The gap between boys and girls stood at 1.2 percentage points.

Notes

1. Context

1.1 Policy/Operational

National Reading and Numeracy tests were implemented on a statutory basis in May 2013 for all pupils in Years 2 to 9. Previously, many schools have used commercially produced reading and numeracy tests as well as cognitive ability tests. The introduction of the National Reading and Numeracy tests provides uniformity of practice and allows direct comparisons both across Wales and between Welsh and English language tests. The tests complement the National Literacy and Numeracy Framework (LNF) and aim to track pupils' progress in reading and numeracy skills from Year 2 (the end of Foundation Phase) through to Year 9 (the end of Key Stage 3). The tests are designed to give teachers a clearer insight into a learner's development and ensure that all schools are identifying the needs of their pupils in order to progress their ability in reading and numeracy. This will allow them to identify strengths and areas for improvement and to intervene at an earlier stage if learners are falling behind. More information on the LNF is available on Learning Wales here:

<http://learning.wales.gov.uk/resources/nlnf/?skip=1&lang=en>

The reading tests were developed for the Welsh Government by the National Foundation for Educational Research (NFER) and the numeracy tests by NFER, in collaboration with Acumina. The reading tests were trialled extensively in schools across Wales in June 2012 and the numeracy tests were trialled on a smaller scale in October 2012. NFER and Acumina sought advice from expert panels, LA advisers and practitioners throughout the development of the tests. Consultation on the LNF and the tests took place between 11 June and 12 October 2012.

For further information on the arrangements for the administration of the tests, please see "National Reading and Numeracy Tests – 2013 Test Administration Handbook" available here:

<http://wales.gov.uk/topics/educationandskills/schoolshome/literacynumeracy/national-reading-and-numeracy-tests-2013-test-administration-handbook/?lang=en>

Headteachers are responsible for reporting results for all pupils on their school roll as at the second Tuesday in May; this is known as the 'specified date on roll'. In 2013, the date for this was 14 May.

Statutory assessment arrangements for the school year 2012/13 can be found here:

<http://wales.gov.uk/topics/educationandskills/schoolshome/curriculuminwales/statutoryassessment/?lang=en>

The Minister for Education and Skills released a written statement on the implementation of the National Tests. A review will be conducted which will look at how in practice the National Tests have been introduced and implemented, as well as what we can learn from the 2013 round of tests that might be incorporated into future guidance. The full Ministerial update can be viewed here:

<http://wales.gov.uk/about/cabinet/cabinetstatements/2013/litnumtests/?lang=en>

1.2 Related Publications

A statistical release relating to teacher assessments for the mandatory areas of learning at end of Foundation Phase and core subjects at Key Stage 2 and 3, entitled "End of Foundation Phase Outcomes and National Curriculum Teacher Assessment of Core Subjects at Key stages 2 and 3" was released on 14 August 2013. A further release relating to non-core subjects at Key Stage 3 and Welsh Second Language at Key Stage 2, entitled 'Teacher Assessments of the Non-Core Subjects, Wales 2013' was also released on 14 August 2013. Both releases can be found here:

<http://wales.gov.uk/topics/statistics/headlines/schools2013/?lang=en>

The Department for Education publishes statistics on the Key Stage 2 National Curriculum tests sat by pupils in England. Pupils in England also sit tests in Key Stage 1 to help inform final teacher assessments. Furthermore, optional tests exist at Key Stages 2 and 3 in England to help track progress. Statistical releases for tests at Key Stage 2 and teacher assessments at Key Stages 1, 2 and 3 and can be found here:

<http://www.education.gov.uk/researchandstatistics/statistics>

2. Data Sources

2.1 National Reading Tests

National Reading Test data was collected through the pre-existing National Data Collection (NDC). The NDC is the electronic collection of teacher assessment data at end of Foundation Phase and Key Stages 2 and 3 and was expanded to include the collection of National Reading Test results for the first time in 2013. Data is sent by schools to Knowledge and Analytical Services within the Welsh Government care of their Local Authority (LA).

A summary of the NDC process for 2013 covering timescales and reporting arrangements can be found here:

<http://wales.gov.uk/topics/educationandskills/schoolshome/schooldata/ims/datacollections/nationaldatacollection/?lang=en>

The NDC will be further expanded in 2014 to include the collection of National Numeracy Test data (both procedural and reasoning components).

2.2 National Numeracy Tests

National Numeracy Test data was collected by NFER on behalf of the Welsh Government. Data was collected via downloadable data collection spreadsheets through a secure, purpose-built portal according to the same timescales outlined for the NDC.

3. Definitions

3.1 Coverage

It is a statutory requirement for all pupils in Years 2 to 9 to sit both the reading and numeracy tests. Pupils studying Welsh first language in Years 2 and 3 are required to sit the Welsh version of the reading test only although schools may opt for pupils studying Welsh first language in Year 3 to, additionally, sit the English version of the tests. For consistency, any optional English test results for pupils studying Welsh first language in Year 3 have been removed from the analysis included in this release.

From Years 4 to 9, pupils studying Welsh first language must submit results for both the English and Welsh versions of the reading tests.

Schools were able to choose whether pupils sat the numeracy tests in English or Welsh. Pupils sitting the paper in Welsh were also able to refer to the English version of the paper.

One test paper covered two year groups for the reading tests whilst there was a separate numeracy test paper for each year group. A summary of the test papers sat can be found in the table below:

National Curriculum Year	Welsh NRT paper	English NRT paper	Welsh NNT paper	English NNT paper
2	CA1	EA1 ^(a)	2CG13	2EP13
3	CA1	EA1 ^(b)	3CG13	3EP13
4	CB1	EB1	4CG13	4EP13
5	CB1	EB1	5CG13	5EP13
6	CC1	EC1	6CG13	6EP13
7	CC1	EC1	7CG13	7EP13
8	CD1	ED1	8CG13	8EP13
9	CD1	ED1	9CG13	9EP13

(a) Not required to be sat for pupils studying Welsh first language

(b) Optional for pupils studying Welsh first language

Pupils should sit the test paper(s) for the National Curriculum Year group in which they are taught. It is possible that some may be older or younger and some may be taught in a class where the majority of pupils are of a different age.

The English and Welsh reading tests differ in their content but were aligned to the same scales for the computation of progress and standardised scores. Results for the English and Welsh reading tests are presented separately in this release. The results of the numeracy tests are combined in this release as the content of the English and Welsh numeracy tests is identical.

3.2 Standardised Scores

Pupils' raw scores obtained from the test papers were converted into standardised scores, which are presented in this release. The standardisation process takes into account the pupil's age at the time of testing and places all pupils on the same scale, meaning comparisons can be made between pupils regardless of age, year group or the particular test paper sat.

At the Wales-level, the standardisation is designed to fit a frequency distribution known as the 'normal distribution' with the scores having an average of 100 in the first year, making it easy to see whether a pupil has performed above or below average when compared to the standardisation sample. The standardisation is also designed to give a standard deviation (a measure of the spread of scores) of 15. This construct is designed in order to ensure that 68 per cent of pupils sitting the test have a standardised score within 15 points of the average score (between 85 and 115).

Further explanation of standardised scores can be obtained from the following guidance on age-standardised scores, published by NFER:

<http://www.nfer.ac.uk/what-we-do/assessment/en/assessment-in-wales.cfm>

The National Reading Tests were standardised based on a nationally representative sample of approximately 10,000 pupils that sat tests during a two-week period in October 2012. Pupils sitting the "live" tests in May 2013 were, therefore, compared back to this sample group in the calculation of their standardised scores. The data has shown that scores were, on average, higher in the population sitting the "live" tests than in the sample group. For further information, please see section 5.2 on page 9 of this release.

The National Numeracy Tests were standardised on the "live" population data. The Wales-level data, therefore, approximately follows the expected pattern with a mean of 100 and a standard deviation of 15.

Some pupils were unable to be provided with standardised scores. Attainment at the extremes of the scale (standardised scores of less than 70 or greater than 140) cannot be accurately modelled as too few pupils in the standardisation sample attained scores such that these could be calculated with the necessary degree of statistical reliability.

3.3 Disapplication

The definition of disapplication and the related guidance differs from that provided for teacher assessments. Therefore disapplication rates are not directly comparable and may differ. The disapplication guidance for the National Reading and Numeracy Tests is available on Learning Wales here:

<http://learning.wales.gov.uk/resources/nrnt-access-disapplication-guidance/?skip=1&lang=en>

4. Rounding and symbols

In tables where figures have been rounded to the nearest final digit, there may be an apparent discrepancy between the sum of the constituent items and the total shown.

The following symbols have been used throughout the publication:

- percentages less than 0.05 but not zero
- . not applicable
- .. not available
- ~ not yet available
- * data which cannot be given for reasons of confidentiality

*Cohort sizes have been replaced by a * where there are fewer than 5 but more than zero pupils in a category.*

*Percentages have been replaced by a * where there are fewer than 50 but more than zero pupils in a cohort, or where the number of pupils achieving is less than 5 but more than zero.*

This is to make users aware of the very small numbers in certain categories and to show that care should be taken when making comparisons between attainment data for such categories.

In circumstances where a suppressed figure can be identified from the remaining data, the next smallest figure has also been suppressed.

5. Key Quality Information

This section provides a summary of information on this output against five dimensions of quality: Relevance, Accuracy, Timeliness and Punctuality, Accessibility and Clarity, and Comparability. It also covers specific issues relating to quality of 2013 data, and describes the quality management tool applied to this area of work.

Comments on the coverage or presentation of this release are welcomed. Contact details are on the front page.

5.1 Relevance

Who are the key users of this data?

These statistics are used both within and outside the Welsh Government. Some of the key users are:

- Ministers and the Members Research Service in the National Assembly for Wales;
- The Department for Education and Skills in the Welsh Government;
- Other areas of the Welsh Government;
- The research community;
- LAs and schools;
- Students, academics and universities;
- Individual citizens, private companies and the media.

What are the data used for?

These statistics are used in a variety of ways. Some examples of these are:

- General background and research;
- Inclusions in reports and briefings;
- Advice to Ministers;
- The All-Wales Core Data Sets;
- LA and school comparisons and benchmarks;
- To inform the education policy decision-making process in Wales;
- To inform ESTYN during school inspections;
- To assist in research in educational attainment.

5.2 Accuracy

This release has been labelled as ‘experimental statistics’, which are new official statistics undergoing evaluation. They are published in order to involve users and stakeholders in their development and as a means to build in quality at an early stage. As with all new data collections, there may be issues that should be taken into account in the interpretation and analysis of the data.

The distribution of standardised scores obtained for pupils sitting the National Reading Test in May 2013 does not fit the sample distribution constructed to have an average score of 100. The average score observed in the “live” tests was higher, indicating that the population of pupils sitting the tests in May 2013 has performed better than the sample group from which the standardised scores were constructed. While some degree of difference between the distribution of population results compared to the distribution of the sample results can be expected, the extent of this effect means that the interpretation of the standardised scores should be treated with caution. There are a number of possible explanations for this discrepancy between the sample group and the population:

- Focus of schools on performance in the tests and in raising awareness of the tests;
- The availability of sample materials;
- Increased awareness of test technique and familiarity with tests;
- Some degree of non-representation of the population in the sample group.

It is also important to consider that, during the sampling process, the overall distribution of standardised scores for the National Reading Tests was constructed by linking results from the English and Welsh versions of the test. It is possible that this may also contribute to any difference in the distribution of scores presented in this release as results for the English and Welsh versions of the reading tests are presented separately.

Technical information detailing the sampling and standardisation process for the National Reading Test is published on Learning Wales here:

<http://learning.wales.gov.uk/resources/technical-information/?lang=en>

5.3 Timeliness and Punctuality

Schools are required to administer the tests during the set test window. For 2013, the test window lasted from 8 May until 22 May. DEWi, a secure online data transfer system developed by the Welsh Government, was available for uploading National Reading Test files on 7 May 2013. Schools were asked to submit data for every pupil on roll at the school on 14 May. Schools and LAs were then asked to validate their data within the validation period, which closed on 5 July.

The NFER School Portal was available for uploading National Numeracy Test files on 14 May 2013, with schools, again, asked to submit data for every pupil on roll at the school on 14 May. The data collection period closed on 5 July.

5.4 Accessibility and Clarity

This Statistical First Release is pre-announced and then published on the Statistics section of the Welsh Government website. More detailed tables will follow on [StatsWales](#), a free to use service that allows visitors to view, manipulate, create and download data.

In addition to standardised scores, pupils were also given reading and numeracy age-equivalent scores (in years and months) which provide an indication of their current level of attainment relative to their peers. These were reported to parents along with the standardised scores. It is, however, recommended that these should be treated with caution. The Welsh Government will be measuring performance using standardised scores and, in future years, progress scores rather than age-equivalent scores. Whilst these can be a useful aid to comprehension, the wide margin of error around them makes them unsuitable for planning of performance monitoring purposes.

5.5 Comparability

One school failed to submit National Reading Test data through the NDC whilst seven schools failed to submit National Numeracy Test data to NFER. This, along with the fact that the data was collected through separate data collection procedures, has led to differences in the cohort sizes between the reading and numeracy tests presented in this release.

National Reading Test data was not collected for Pupil Referral Units (PRUs) or independent schools. Both PRUs and independent schools were able to submit National Numeracy Test data through the NFER School Portal. One independent school submitted data in 2013. An independent school's data will not be included in an LA's results, but will appear in the overall results for Wales.

Attainment data for pupils new to the English or Welsh based education system (NEWBES) within the previous two academic years are removed from the school and LA's results, but included in the overall results for Wales. The date of entry for NEWBES pupils was not captured during the National Numeracy Test data collection. Therefore, NEWBES data collected through the NDC for the National Reading Test has been matched across and used for the National Numeracy Test data where possible.

Comparisons between the Reading and Numeracy tests are not recommended due to the differences in the standardisation procedures.

Since this is the first year in which data on National Tests has been collected, year-on-year comparisons are not available. During the 2013 data collection, baseline progress scores were also collected for each pupil. In future, the main focus of the tests will be on the measurement of pupils' year-on-year progress to ensure that all pupils are continuing to develop their reading and numeracy skills and to identify those who require additional support. The emphasis in future years will be on pupils' progress scores rather than their standardised scores. Next year, pupils will again receive a progress score for each test sat. The difference between these progress scores and the baseline progress score collected this year will form the basis of a progress measure to be reported on in this statistical release and elsewhere.

5.6 Coherence

During the collection of National Reading Test data, the Welsh Government worked closely with schools and LAs in order to ensure all data were validated before tables are published. Data was collated into an electronic return and submitted to the Welsh Government through DEWi. Various stages of automated validation and sense-checking are built into the process to ensure a high quality of data.

The NFER School Portal did not contain any automated validation procedures, though manual validation was carried out on the files received. NFER worked closely with schools to resolve any data issues identified after submission. Whilst LAs did have access to the NFER School Portal, they did not have the same level of involvement in the validation of numeracy test data that they had with reading test data. LAs were also unable to have access to their full data before this was finalised and submitted to the Welsh Government for analysis. Care should, therefore, be taken in the interpretation and analysis of National Numeracy Test data.